

DRILL HOLES

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BORDER REV: DATE: June 1, 2004

# PROJECT DESCRIPTION

## I. GENERAL

This project involves the modification of an existing span wire Traffic Control Signal with and interconnect at the intersection of MD 119 (Great Seneca Hwy) and Middlebrook Road in Montgomery County. Middlebrook Rd is assumed to run an east-west direction.

## II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA five-phase, semi-actuated mode, with the Middlebrook Rd approaches running concurrently. The Exclusive left turn phase for the westbound approach of Middlebrook Rd shall remain in operation. The Exclusive/Permissive U-turn phase for the eastbound approach of Middlebrook Rd shall remain in operation. The Countdown pedestrian phase with audible pushbuttons across MD 119 (Great Seneca Hwy) shall remain on recall. The Countdown pedestrian phase with audible pushbuttons across the east leg of Middlebrook Rd shall remain on actuation. For side sampling stations shall continue to be provided on MD 119 (Great Seneca Hwy) and both legs of Middlebrook Rd at this intersection. MD 119 (Great Seneca Hwy) shall also continue to run in its own phase. A new Middlebrook Rd eastbound right turn concurrent phase shall be installed at this intersection.
- The existing full-traffic-actuated, eight-phase controller with video interface L.A.U. and L.A.U. Panel, 2-wire Control Unit and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.

## III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by Montgomery County Forces. Contact Kamal Hamud at (240) 777-8795 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

## EQUIPMENT LIST

### A. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
8088	R3-SR "RIGHT TURN ONLY" sign, (30" x 36") span wire mounted.	1 Each
8088	S1-1 "School", sign (30"x30") FY/G ground mounted.	2 Each
8088	W16-7P(L) "arrow (symbolic) diagonal" sign, (24" x 12") FY/G ground mounted.	1 Each
8088	W16-7P(R) "arrow (symbolic) diagonal" sign, (24" x 12") FY/G ground mounted.	1 Each
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSH BUTTON TO CROSS GREAT SENECA HWY").	1 Each

### B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of Traffic	1 Day
2002	Test pit excavation.	1 C.Y.
8001	Concrete foundation.	0.7 C.Y.
8023	3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).	10 L.F.
8028	4" polyvinyl chloride electrical conduit (Schedule 80) (pushed). (To be bored).	70 L.F.
8043	Ground rod, 3/4" diameter x 10' length with clamp.	1 Each
8064	2-conductor electrical cable (No. 14 A.W.G.).	190 L.F.
8066	5-conductor electrical cable (No. 14 A.W.G.).	195 L.F.
8067	7-conductor electrical cable (No. 14 A.W.G.).	90 L.F.
8075	1-conductor electrical cable (No. 6 A.W.G.) stranded bare copper ground wire.	185 L.F.
8081	Wood sign supports (4" x 4").	32 L.F.
8163	Removal and salvage of pedestal pole.	1 Each
8166	Removal of signal handbox.	1 Each
8167	Removal and salvage of any signal head.	1 Each
Neg.	Remove existing pavement markings.	625 L.F.
Neg.	12" white heat applied permanent preformed thermoplastic pavement marking.	1130 L.F.
Neg.	24" white heat applied permanent preformed thermoplastic pavement marking.	60 L.F.
	10' breakaway pedestal pole with transformer base.	1 EA
	Furnish and install 12" vehicular LED traffic signal head (R.Y.G.YA.GA)	1 Each
Neg.	Furnish and install 16" LED Countdown pedestrian signal head.	1 Each
	Audible/tactile pedestrian pushbutton station & signs.	1 EA
	Relocate sign.	1 EA
	Adjust handhole to grade.	1 EA

The contacts for Montgomery County and SHA are as follows:

Mr. Cedric Ward  
Assistant District Engineer - Traffic  
Phone: (301) 513-7409

Mr. Vernon Stinnett  
Assistant District Engineer - Maintenance  
Phone: (301) 513-7304

Mr. Victor Grafton  
Assistant District Engineer - Utility  
Phone: (301) 513-7350

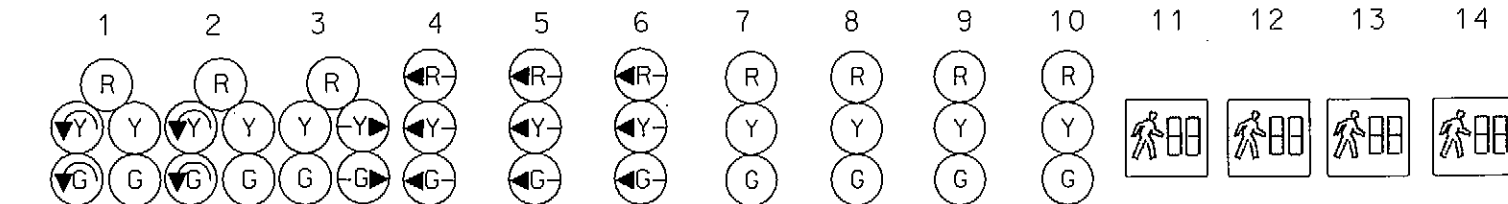
Mr. Kamal Hamud  
Mont. County TMC Center  
240-777-8761

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

Mr. Bob Ricketts  
Signal Shop (Mont Co.)  
301-279-1291

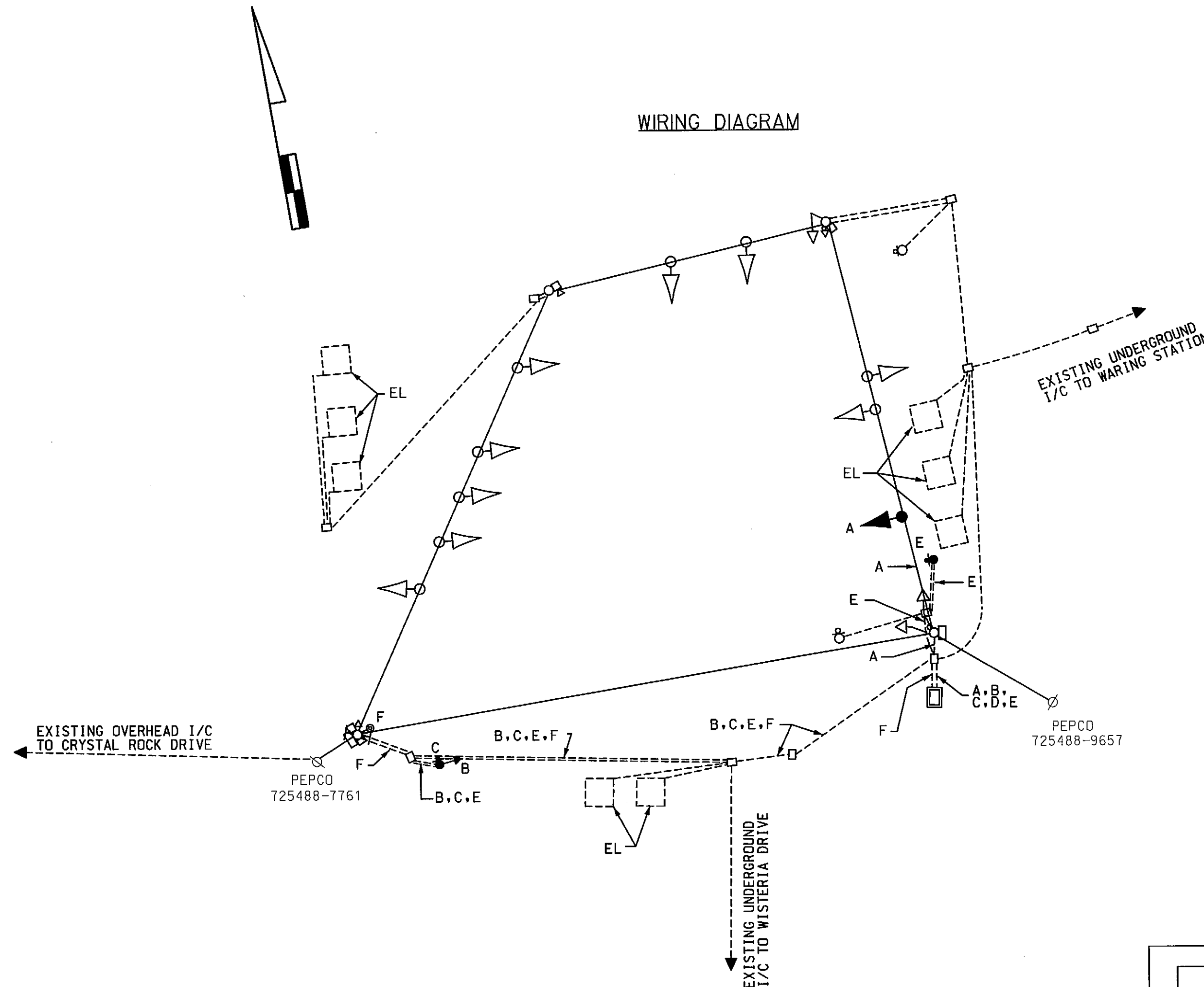
Mr. Sonny Bailey  
Manager, Sign Shop Operations  
410-787-7670

## PHASE CHART



PHASE 1 & 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6														
PHASE 1 & 6	R	R	R	G	G	G	R	R	R	R	DW	DW	DW	DW
1 & 6 CHANGE	R	R	R	G	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5	G	G	G	R	R	R	R	R	R	R	WK	WK	DW	DW
2 & 5 CHANGE	G	G	G	R	R	R	R	R	R	R	WK	WK	DW	DW
PHASE 2 & 6	G	G	G	R	R	R	R	R	R	R	WK	WK	DW	DW
COUNTDOWN PED CLEAR	G	G	G	R	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	G	G	G	R	R	R	R	R	R	R	WK	WK	DW	DW
PHASE 4	R	R	R	G	G	G	R	R	R	R	DW	DW	DW	DW
4 CHANGE	R	R	R	G	G	G	R	R	R	R	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	G	G	G	R	R	R	R	DW	DW	WK	WK
COUNTDOWN PED CLEAR	R	R	R	G	G	G	R	R	R	R	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	R	R	R	G	G	G	R	R	R	R	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK

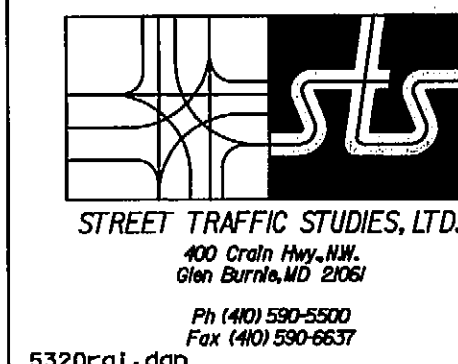
## WIRING DIAGRAM



## WIRING KEY

- A - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- F - 3-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.) FOR TRAFFIC SURVEILLANCE CAMERA
- EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING
- ES - EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO
- + - GROUND ROD

<b>SHA</b> STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION	
MD 119 (GREAT SENECA HIGHWAY) AND MIDDLEBROOK ROAD GERMANTOWN, MARYLAND	
GENERAL INFORMATION SHEET	
SCALE NONE	DATE 12-13-11
CONTRACT NO. MD17A55/B55	
DESIGNED BY R.R.Z.	COUNTY Montgomery
DRAWN BY R.C.	LOGMILE 15011907.47
CHECKED BY	TMS NO. K881
F.A.P. NO.	TOD NO.
TS NO. 4367D	DRAWING NO. 3 OF 3
SHEET NO. OF	



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